

=====

Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: markspencer

Timestamp: [year=2008; month=4; day=30; hr=15; min=53; sec=24; ms=825;]

=====

Application No: 10590734 Version No: 1.0

Input Set:

Output Set:

Started: 2008-04-17 12:19:18.896
Finished: 2008-04-17 12:19:20.825
Elapsed: 0 hr(s) 0 min(s) 1 sec(s) 929 ms
Total Warnings: 77
Total Errors: 0
No. of SeqIDs Defined: 85
Actual SeqID Count: 85

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (12)
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
W 213	Artificial or Unknown found in <213> in SEQ ID (14)
W 213	Artificial or Unknown found in <213> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (16)
W 213	Artificial or Unknown found in <213> in SEQ ID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20)
W 213	Artificial or Unknown found in <213> in SEQ ID (21)
W 213	Artificial or Unknown found in <213> in SEQ ID (22)
W 213	Artificial or Unknown found in <213> in SEQ ID (23)
W 213	Artificial or Unknown found in <213> in SEQ ID (24)
W 213	Artificial or Unknown found in <213> in SEQ ID (25)
W 213	Artificial or Unknown found in <213> in SEQ ID (26)

Input Set:

Output Set:

Started: 2008-04-17 12:19:18.896
Finished: 2008-04-17 12:19:20.825
Elapsed: 0 hr(s) 0 min(s) 1 sec(s) 929 ms
Total Warnings: 77
Total Errors: 0
No. of SeqIDs Defined: 85
Actual SeqID Count: 85

Error code	Error Description
	This error has occurred more than 20 times, will not be displayed

SEQUENCE LISTING

<110> INSERM

<120> IL-15 binding site for IL15-Ralpha, and specific agonists/antagonists deriving therefrom

<130> FP/CC - PCT IL-15 muteins INSERM

<140> 10590734

<141> 2008-04-17

<150> ep04290542.2

<151> 2004-02-27

<160> 85

<170> PatentIn version 3.2

<210> 1

<211> 1496

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (373)..(861)

<400> 1

gactccgggt ggcaggcgcc cgggggaatc ccagctgact cgctcaactgc cttcgaagt 60

cggcgccccc cgggagggaa ctgggtggcc gcaccctccc ggctgcggtg gctgtcgccc 120

ccccaccctgc agccaggact cgatggagaa tccattccaa tatatggcca tgtggcttt 180

tggagcaatg ttccatcatg ttccatgctg ctgctgacgt cacatggagc acagaaatca 240

atgttagcag atagccagcc catacaagat cgtattgtat tgttaggaggc atcgtggatg 300

gatggctgct ggaaaccct tgcctatgcc agctcttctt caatacttaa ggatttaccg 360

tggcttgag ta atg aga att tcg aaa cca cat ttg aga agt att tcc atc 411

Met Arg Ile Ser Lys Pro His Leu Arg Ser Ile Ser Ile

1 5 10

cag tgc tac ttg tgt tta ctt cta aac agt cat ttt cta act gaa gct 459

Gln Cys Tyr Leu Cys Leu Leu Leu Asn Ser His Phe Leu Thr Glu Ala

15 20 25

ggc att cat gtc ttc att ttg ggc tgt ttc agt gca ggg ctt cct aaa 507

Gly Ile His Val Phe Ile Leu Gly Cys Phe Ser Ala Gly Leu Pro Lys

30 35 40 45

aca gaa gcc aac tgg gtg aat gta ata agt gat ttg aaa aaa att gaa 555

Thr Glu Ala Asn Trp Val Asn Val Ile Ser Asp Leu Lys Lys Ile Glu

50 55 60

gat ctt att caa tct atg cat att gat gct act tta tat acg gaa agt		603
Asp Leu Ile Gln Ser Met His Ile Asp Ala Thr Leu Tyr Thr Glu Ser		
65	70	75
gat gtt cac ccc agt tgc aaa gta aca gca atg aag tgc ttt ctc ttg		651
Asp Val His Pro Ser Cys Lys Val Thr Ala Met Lys Cys Phe Leu Leu		
80	85	90
gag tta caa gtt att tca ctt gag tcc gga gat gca agt att cat gat		699
Glu Leu Gln Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp		
95	100	105
aca gta gaa aat ctg atc atc cta gca aac aac agt ttg tct tct aat		747
Thr Val Glu Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn		
110	115	120
125		
ggg aat gta aca gaa tct gga tgc aaa gaa tgt gag gaa ctg gag gaa		795
Gly Asn Val Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu		
130	135	140
aaa aat att aaa gaa ttt ttg cag agt ttt gta cat att gtc caa atg		843
Lys Asn Ile Lys Glu Phe Leu Gln Ser Phe Val His Ile Val Gln Met		
145	150	155
ttc atc aac act tct tga ttgcaattga ttcttttaa agtgttctg		891
Phe Ile Asn Thr Ser		
160		
ttattaacaa acatcactct gctgcttaga cataacaaaa cactcgcat ttcaaatgtg		951
ctgtcaaaac aagttttct gtcaagaaga tgatcagacc ttggatcaga tgaactctta		1011
gaaatgaagg cagaaaaatg tcattgagta atatagtgac tatgaacttc tctcagactt		1071
actttactca ttttttaat ttattattga aattgtacat atttgtggaa taatgtaaaa		1131
tgttgaataa aaatatgtac aagtgttgtt ttttaagttt cactgatatt ttacctctta		1191
ttgcaaaata gcatttgttt aagggtgata gtcaaattat gtattgggg ggctgggtac		1251
caatgctgca ggtcaacagc tatgctggta ggctcctgcc agtgtggAAC cactgactac		1311
tggctctcat tgacttcctt actaaggcata gcaaacagag gaagaatttg ttatcagtaa		1371
gaaaaagaag aactatatgt gaatcctctt ctttatactg taatttagtt attgatgtat		1431
aaagcaactg ttatgaaata aagaaaattgc aataactggc aaaaaaaaaa aaaaaaaaaa		1491
aaaaa		1496

<210> 2
<211> 162
<212> PRT
<213> Homo sapiens

<400> 2

Met Arg Ile Ser Lys Pro His Leu Arg Ser Ile Ser Ile Gln Cys Tyr
1 5 10 15

Leu Cys Leu Leu Leu Asn Ser His Phe Leu Thr Glu Ala Gly Ile His
20 25 30

Val Phe Ile Leu Gly Cys Phe Ser Ala Gly Leu Pro Lys Thr Glu Ala
35 40 45

Asn Trp Val Asn Val Ile Ser Asp Leu Lys Lys Ile Glu Asp Leu Ile
50 55 60

Gln Ser Met His Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His
65 70 75 80

Pro Ser Cys Lys Val Thr Ala Met Lys Cys Phe Leu Leu Glu Leu Gln
85 90 95

Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu
100 105 110

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
115 120 125

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Lys Asn Ile
130 135 140

Lys Glu Phe Leu Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn
145 150 155 160

Thr Ser

<210> 3

<211> 27

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)..(27)

<400> 3

ctc ttg gag tta caa gtt att tca ctt
Leu Leu Glu Leu Gln Val Ile Ser Leu
1 5

27

<210> 4
<211> 9
<212> PRT
<213> Homo sapiens

<400> 4

Leu Leu Glu Leu Gln Val Ile Ser Leu
1 5

<210> 5
<211> 15
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(15)

<400> 5
gaa aat ctg atc atc 15
Glu Asn Leu Ile Ile
1 5

<210> 6
<211> 5
<212> PRT
<213> Homo sapiens

<400> 6

Glu Asn Leu Ile Ile
1 5

<210> 7
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 7

Leu Asp Glu Leu Gln Val Ile Ser Leu
1 5

<210> 8
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 8

Leu Glu Glu Leu Gln Val Ile Ser Leu
1 5

<210> 9
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 9

Leu Lys Glu Leu Gln Val Ile Ser Leu
1 5

<210> 10
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 10

Leu Arg Glu Leu Gln Val Ile Ser Leu
1 5

<210> 11
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 11

Leu Leu Glu Leu Gln Val Ile Asp Leu
1 5

<210> 12

<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 12

Leu Leu Glu Leu Gln Val Ile Glu Leu
1 5

<210> 13
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 13

Leu Leu Glu Leu Gln Val Ile Lys Leu
1 5

<210> 14
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 14

Leu Leu Glu Leu Gln Val Ile Arg Leu
1 5

<210> 15
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 15

Leu Leu Glu Leu Gln Val Ile Ser Asp
1 5

<210> 16
<211> 9

<212> PRT
<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 16

Leu Leu Glu Leu Gln Val Ile Ser Glu
1 5

<210> 17
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 17

Leu Leu Glu Leu Gln Val Ile Ser Lys
1 5

<210> 18
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 18

Leu Leu Glu Leu Gln Val Ile Ser Arg
1 5

<210> 19
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 19

Lys Asn Leu Ile Ile
1 5

<210> 20
<211> 5
<212> PRT

<213> Artificial Sequence

<220>

<223> IL15 mutant

<400> 20

Arg Asn Leu Ile Ile

1 5

<210> 21

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> IL15 mutant

<400> 21

Glu Asp Leu Ile Ile

1 5

<210> 22

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> IL15 mutant

<400> 22

Glu Glu Leu Ile Ile

1 5

<210> 23

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> IL15 mutant

<400> 23

Glu Lys Leu Ile Ile

1 5

<210> 24

<211> 5

<212> PRT

<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 24

Glu Arg Leu Ile Ile
1 5

<210> 25
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 25

Glu Asn Leu Ile Asp
1 5

<210> 26
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 26

Glu Asn Leu Ile Glu
1 5

<210> 27
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 27

Glu Asn Leu Ile Lys
1 5

<210> 28
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 28

Glu Asn Leu Ile Arg
1 5

<210> 29
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 29

Asn Trp Val Asn Val Ile Ser Asp Leu Lys Lys Ile Glu Asp Leu Ile
1 5 10 15

Gln Ser Met His Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His
20 25 30

Pro Ser Cys Lys Val Thr Ala Met Lys Cys Phe Leu Asp Glu Leu Gln
35 40 45

Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu
50 55 60

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
65 70 75 80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile
85 90 95

Lys Glu Phe Leu Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn
100 105 110

Thr Ser

<210> 30
<211> 114
<212> PRT
<213> Artificial Sequence

<220>

<223> IL15 mutant

<400> 30

Asn Trp Val Asn Val Ile Ser Asp Leu Lys Lys Ile Glu Asp Leu Ile
1 5 10 15

Gln Ser Met His Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His
20 25 30

Pro Ser Cys Lys Val Thr Ala Met Lys Cys Phe Leu Glu Glu Leu Gln
35 40 45

Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu
50 55 60

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
65 70 75 80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile
85 90 95

Lys Glu Phe Leu Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn
100 105 110

Thr Ser

<210> 31

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> IL15 mutant

<400> 31

Asn Trp Val Asn Val Ile Ser Asp Leu Lys Lys Ile Glu Asp Leu Ile
1 5 10 15

Gln Ser Met His Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His
20 25 30

Pro Ser Cys Lys Val Thr Ala Met Lys Cys Phe Leu Lys Glu Leu Gln
35 40 45

Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu
50 55 60

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
65 70 75 80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile
85 90 95

Lys Glu Phe Leu Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn
100 105 110

Thr Ser

<210> 32
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 32

Asn Trp Val Asn Val Ile Ser Asp Leu Lys Lys Ile Glu Asp Leu Ile
1 5 10 15

Gln Ser Met His Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His
20 25 30

Pro Ser Cys Lys Val Thr Ala Met Lys Cys Phe Leu Arg Glu Leu Gln
35 40 45

Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu
50 55 60

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
65 70 75 80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile
85 90 95

Lys Glu Phe Leu Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn
100 105 110

Thr Ser

<210> 33
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 33

Asn Trp Val Asn Val Ile Ser Asp Leu Lys Lys Ile Glu Asp Leu Ile
1 5 10 15

Gln Ser Met His Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His
20 25 30

Pro Ser Cys Lys Val Thr Ala Met Lys Cys Phe Leu Leu Glu Leu Gln
35 40 45

Val Ile Asp Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu
50 55 60

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
65 70 75 80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Lys Asn Ile
85 90 95

Lys Glu Phe Leu Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn
100 105 110

Thr Ser

<210> 34
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 34

Asn Trp Val Asn Val Ile Ser Asp Leu Lys Lys Ile Glu Asp Leu Ile
1 5 10 15

Gln Ser Met His Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His
20 25 30

Pro Ser Cys Lys Val Thr Ala Met Lys Cys Phe Leu Leu Glu Leu Gln
35 40 45

Val Ile Glu Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu
50 55 60

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
65 70 75 80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile
85 90 95

Lys Glu Phe Leu Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn
100 105 110

Thr Ser

<210> 35
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> IL15 mutant

<400> 35

Asn Trp Val Asn Val Ile Ser Asp Leu Lys Lys Ile Glu Asp Leu Ile
1 5 10 15

Gln Ser Met His Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His
20 25 30

Pro Ser Cys Lys Val Thr Ala Met Lys Cys Phe Leu Leu Glu Leu Gln
35 40 45

Val Ile Lys Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu
50 55 60

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
65 70 75 80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile
85 90 95